



## Monophasic synovial sarcoma of pancreas

Synovial sarcoma

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### Abstract

Synovial sarcoma that originated from the stromal tissue of pancreas is uncommon and more prevalent in younger patients, with relatively high rates of response to chemotherapy. We report a patient with a duodenal ulcer caused by a pancreatic head tumor which lead to gastrointestinal bleeding causing anemia and melena. The patient underwent Whipple's surgery, and pathological study of mass reported monophasic synovial sarcoma. The patient received chemotherapy.

### Keywords

Pancreas; Monophasic; Synovial Sarcoma

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## Introduction

Synovial-sarcoma ranks fourth among most frequent type of soft-tissue sarcoma after malignant fibrous histiocytoma, liposarcoma and rhabdomyosarcoma [1].

More than 80% appear in the deep soft tissue of the extremities, 50% in the lower limbs and others mostly appear in the upper limbs [2].

Contrary to its name synovial sarcoma usually does not arise from synovial tissue, and it may appear in cephalic and cervical tissue (lesser than 10%), the wall of thorax and abdomen (lesser than 10%) or inner tissues of thorax [3].

In this article, we report a patient with intraabdominal synovial sarcoma originating from the pancreatic head that was very rare.

## Case report

A 30 years old women admitted to hospital with chief complaint of weakness and fatigue. In system review we found melena and laboratory studies showed a microcytic anemia (hemoglobin: 5), so upper an endoscopy was indicated and showed posterior duodenal wall ulcer. **Figure 1.**

Abdominal Computed Tomography (CT) revealed a heterodense mass (sized: 56\*51 millimeter) in the pancreatic head with compression on duodenum; causing an ulcer and a lobulated mass (sized: 22\*38) with a calcified center in inferior lobe of left lung. She underwent Whipple surgery and pathological study of pancreatic mass reported gastrointestinal stromal tumor (GIST) with neural differentiation (S100 positive) and immunohistochemical (IHC) staining recommended.

IHC stains are positive for CD99 and EMA and patchy for CK and negative for CKit, Dog1, and CD34 in tumor cells; so the diagnosis was synoviosarcoma monophasic spindle cell type, grade 2 to 3, with pancreatic head and duodenal wall involvement. We started chemotherapy for the patient with MAID (Masna, Adriamycin, Ifosfamide, Dacarbazine) regimen; and will follow up.

## Discussion

Pancreatic cancer is the 4th cause of death (men and women) in the United States, after pulmonary, colon, and breast cancers. Ductal adenocarcinoma includes about 85% of all pancreatic neoplasm (pancreatic ductal and acinar cells and their stem cells) [4]. More than 95% of malignant neoplasms of the pancreas originate from the exocrine tissues, and 5% of them originate from endocrine tissue (like as beta-cells or alfa-cells, etc.) [5].

Primary mesenchymal tumors of the pancreas like leiomyosarcomas and malignant gastrointestinal stromal tumors are very uncommon [6].

More than 80% of synovial sarcoma appears in deep soft tissue of the extremities, 50% in the lower limbs and others mostly appear in the upper limbs [2].

Contrary to its name synovial sarcoma usually does not arise from synovial tissue, and it may appear in cephalic and cervical tissue (lesser than 10%), the wall of thorax and abdomen (lesser than 10%) or inner tissues of thorax [3].

Synovial sarcoma's histologic study findings may be monophasic or biphasic. Histopathologic study of biphasic tumors showed epithelial cells surrounded by a spindle cell or fibrous element. Histopathology of monophasic synovial sarcomas can be the fibrous or epithelial type (this type is very rare) [7]. In our patient, synovial sarcoma was monophasic, spindle cell type without metastasis.

Chromosomal translocation of t(X;18) (p11.2;q11.2) is found in almost all synovial sarcomas (100% of biphasic and 96% of monophasic synovial sarcomas), and it is the gold standard for

synovial sarcoma diagnosis [8].

Synovial sarcoma has a good response to chemotherapy because it is seen relatively more in young people. Therefore, early intervention for diagnosis and treatment is important [9].

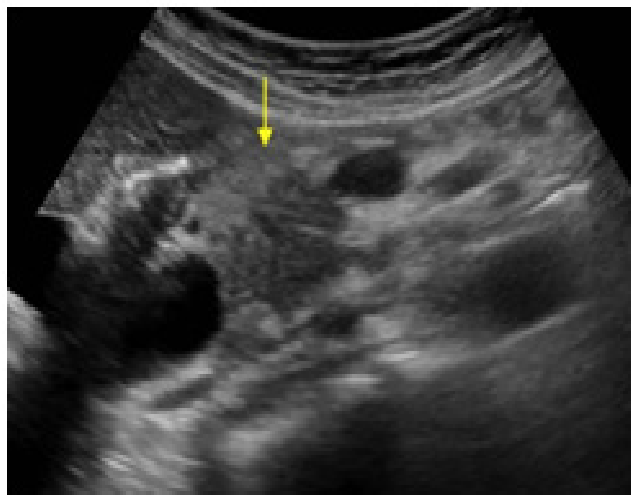


Figure1. Sonography of pancreas showed a solid with heterogenic echogenicity (58mm) in the head of pancreas.

## Scientific Responsibility Statement

*The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.*

## Animal and human rights statement

*All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.*

## Conflict of interest

*None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.*

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